

CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended). An exhaust-gas cleaning system for an internal-combustion engine having an exhaust-gas stream, comprising:

an engine management system for setting a composition of a mixture in the internal-combustion engine;

a first exhaust-gas sensor for measuring a composition of the exhaust-gas stream of the internal-combustion engine, said first exhaust-gas sensor configured in the exhaust-gas stream of the internal-combustion engine;

a first exhaust-gas cleaning element configured in the exhaust-gas stream of the internal-combustion engine, said first exhaust-gas cleaning element configured downstream from said first exhaust-gas sensor;

a control unit for controlling the composition of the mixture in the internal-combustion engine as a function of the composition of the exhaust-gas stream measured by said first

exhaust-gas sensor, said control unit having an input connected to said first exhaust-gas sensor, said control unit having an output connected to said engine management system, and said control unit having two I-controllers connected in series, each one of said two I-controllers having a control response; and

a second exhaust-gas sensor configured in the exhaust-gas stream of the internal-combustion engine, said second exhaust-gas sensor configured downstream from said first exhaust-gas cleaning element, said second exhaust-gas sensor measuring the exhaust-gas composition of the exhaust-gas stream of the internal-combustion engine, and said second exhaust-gas sensor being connected to one of said two I-controllers to influence the control response of said one of said two I-controllers as a function of the exhaust-gas composition measured by said second exhaust-gas sensor;

said control unit having a control response and a control input for influencing the control response to modify a local balance of an oxygen concentration in said first exhaust-gas cleaning element; and

said control input of said control unit being connected to said second exhaust-gas sensor.

Claim 2 (canceled).

Claim 3 (currently amended). ~~The exhaust-gas cleaning system according to claim 2, comprising:~~ An exhaust-gas cleaning system for an internal-combustion engine having an exhaust-gas stream, comprising:

an engine management system for setting a composition of a mixture in the internal-combustion engine;

a first exhaust-gas sensor for measuring a composition of the exhaust-gas stream of the internal-combustion engine, said first exhaust-gas sensor configured in the exhaust-gas stream of the internal-combustion engine;

a first exhaust-gas cleaning element configured in the exhaust-gas stream of the internal-combustion engine, said first exhaust-gas cleaning element configured downstream from said first exhaust-gas sensor;

a control unit for controlling the composition of the mixture in the internal-combustion engine as a function of the composition of the exhaust-gas stream measured by said first exhaust-gas sensor, said control unit having an input

connected to said first exhaust-gas sensor, said control unit having an output connected to said engine management system, and said control unit having two I-controllers connected in series, each one of said two I-controllers having a control response;

a second exhaust-gas sensor configured in the exhaust-gas stream of the internal-combustion engine, said second exhaust-gas sensor configured downstream from said first exhaust-gas cleaning element, said second exhaust-gas sensor measuring the exhaust-gas composition of the exhaust-gas stream of the internal-combustion engine, and said second exhaust-gas sensor being connected to one of said two I-controllers to influence the control response of said one of said two I-controllers as a function of the exhaust-gas composition measured by said second exhaust-gas sensor; and

a second exhaust-gas cleaning element configured in the exhaust-gas stream of the internal-combustion engine, said second exhaust-gas cleaning element configured downstream from said second exhaust-gas sensor;

said control unit having a control response and a control input for influencing the control response to modify a local

balance of an oxygen concentration in said first exhaust-gas  
cleaning element; and

said control input of said control unit being connected to  
said second exhaust-gas sensor.

Claim 4 (original). The exhaust-gas cleaning system according to claim 1, comprising:

a second exhaust-gas cleaning element configured in the exhaust-gas stream of the internal-combustion engine, said second exhaust-gas cleaning element configured downstream from said second exhaust-gas sensor.

Claim 5 (original). The exhaust-gas cleaning system according to claim 4, wherein said second exhaust-gas cleaning element includes a catalytic converter.

Claim 6 (original). The exhaust-gas cleaning system according to claim 5, wherein said first exhaust-gas cleaning element includes a catalytic converter.

Claim 7 (original). The exhaust-gas cleaning system according to claim 1, wherein said first exhaust-gas cleaning element includes a catalytic converter.

Claim 8 (original). The exhaust-gas cleaning system according to claim 1, wherein said first exhaust-gas sensor is a lambda sensor.

Claim 9 (original). The exhaust-gas cleaning system according to claim 8, wherein said second exhaust-gas sensor is a lambda sensor.

Claim 10 (original). The exhaust-gas cleaning system according to claim 1, wherein said second exhaust-gas sensor is a lambda sensor.

Claim 11 (original). The exhaust-gas cleaning system according to claim 1, wherein said first exhaust-gas sensor is a binary lambda sensor.

Claim 12 (original). The exhaust-gas cleaning system according to claim 11, wherein said second exhaust-gas sensor is a binary lambda sensor.

Claim 13 (original). The exhaust-gas cleaning system according to claim 1, wherein said second exhaust-gas sensor is a binary lambda sensor.

Appl. No. 10/040,116  
Amdt. dated 3/11/05  
Reply to Office action of February 4, 2005

Claim 14 (original). The exhaust-gas cleaning system according to claim 1, wherein said control unit includes a controller selected from the group consisting of a P-controller, an I-controller, a D-controller, and an I<sup>2</sup>-controller.

Claim 15 (original). The exhaust-gas cleaning system according to claim 1, wherein said control unit includes a P-controller, an I-controller, a D-controller, and an I<sup>2</sup>-controller.